Pacific Gas and Electric Company

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May 25, 2007

ELECTRONIC DELIVERY

California Energy Commission
Docket Office
Docket No. 06-IEP-1F
1516 Ninth Street, MS-4
Sacramento, CA 95814-5512

Re: Docket No. 06-IEP-1F – 2007 IEPR – Transmission

Please find attached Pacific Gas and Electric Company's (PG&E's) presentation from the May 14, 2007, CEC Workshop on In-state and Interstate Transmission and Potential In-State Corridors.

Please feel free to call Kathleen Treleven at 415-973-6164 or myself at (415) 973-6463 if you have any questions about this matter.

Sincerely,

Les Guliasi

LGG /mld

Enclosure

PG&E In-State Transmission Plans

Ben Morris

CEC Workshop on In-state and Interstate Transmission and Potential In-State Corridors

May 14, 2007

Pacific Gas and Electric Company

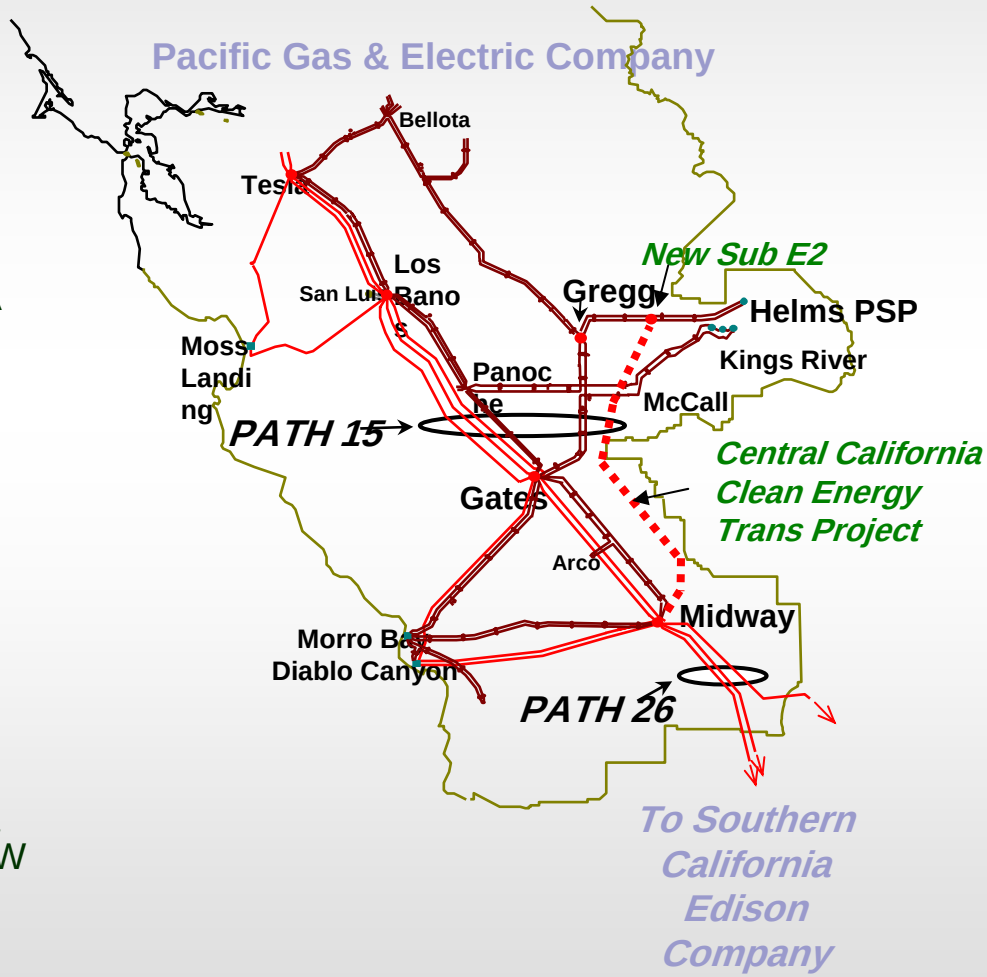
WE DELIVER ENERGY.

2006 Expansion Plan

- Three Primary Project Objectives
  - Meet Reliability Standards (NERC/WECC/CAISO)
  - Reduce Reliance on Local Capacity Requirements (area generation that must be on-line to meet the reliability standards)
  - Access Renewable Resources
- 93 Specific Projects are described for operation in the 2007-2016 period
  - Total Capital Cost of Projects – $1.5-3.0 Billion, includes
    - new lines and transformers
    - reconductoring (replacing existing conductor with larger conductor)
    - Installation of voltage support devices
    - Installation of Special Protection Systems
- Discussion of potential Regional Projects, including the Central California Clean Energy Transmission Project

Central California Clean Energy Transmission Project

- **Project**
  - A new 500 kV path between Midway and Fresno Area
- **Project Objective:**
  - Increase Path 15 transfer capability by ~1,250 MW
  - Increase transfer of base load & as available renewable resources from S CA to N CA
  - Helps integrate S CA renewables with N CA
  - Increase utilization of the Helms PSP to enhance the value of off-peak generation
  - Increase reliability to Yosemite/Fresno area
  - Reduce Fresno Area LCR
- **Project Scope**
  - Construct ~ 150 miles of new 500 kV double circuit tower line from Midway to a new substation east of Fresno on new R/W
- **Operative Date >> 2012**
- **Defers need for Gates-Gregg indefinitely**



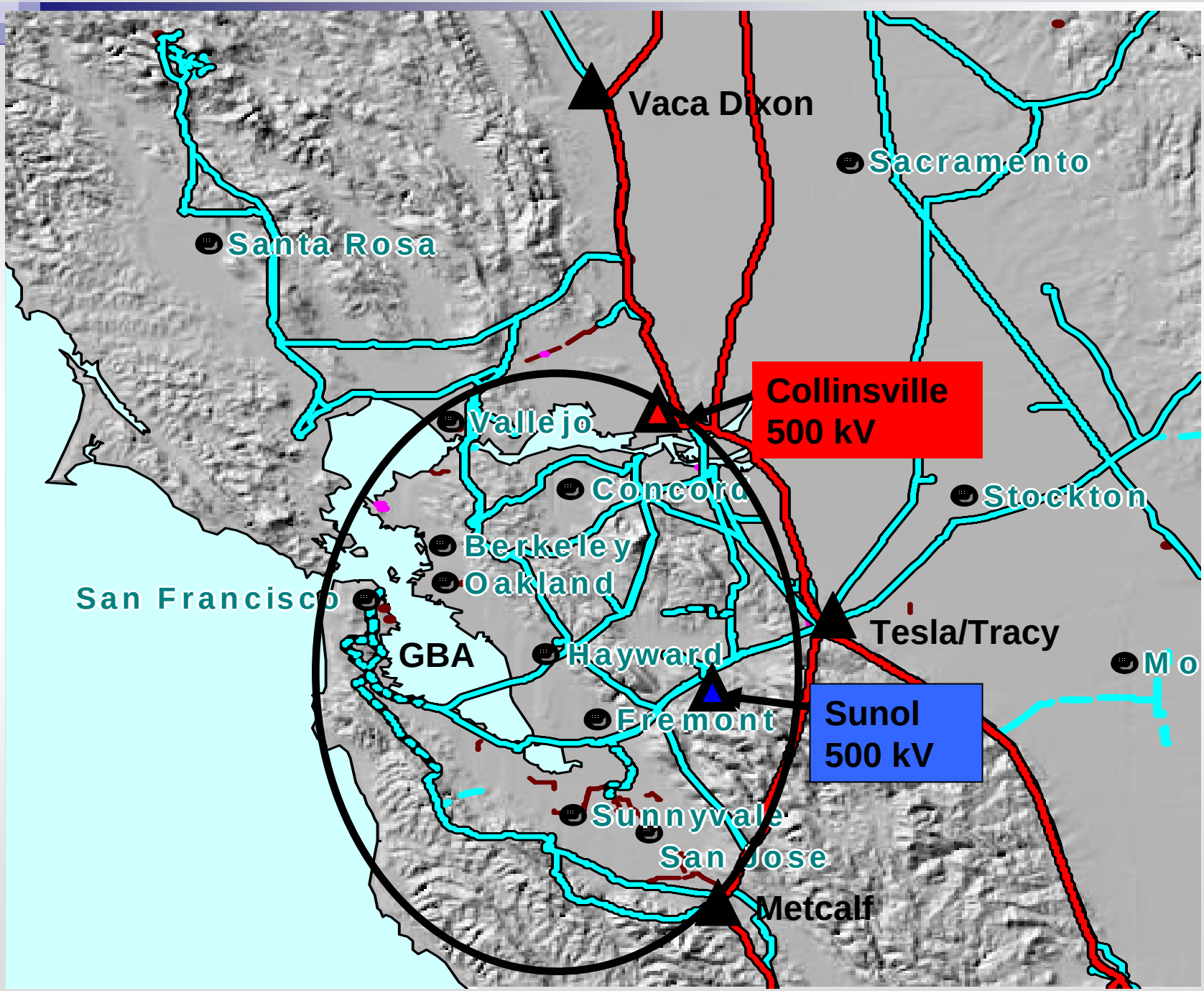
Bay Area Long-Term Study – CAISO Stakeholder Group

Study Objectives and Alternatives

- CAISO Stakeholder Process
- Objectives:
  - Minimize total transmission and generation costs to customers
- Alternatives
  - 500kV Sunol Substation and new Vaca Dixon-Contra Costa and Contra Costa-Pittsburg 230 kV lines paralleling existing transmission
  - 500kV Collinsville Substation, Collinsville-Contra Costa-Pittsburg 230 kV lines, and Tesla-Newark 230 kV lines paralleling existing transmission
  - 500kV Collinsville Substation and Tracy-Newark-Northern Receiving Station (NRS) 230kV line paralleling existing transmission
  - Tracy 500/230 kV transformer, and Vaca Dixon-Contra Costa-Pittsburg and Tesla-Newark 230 kV lines paralleling existing transmission
  - Status Quo Option – Original Gen retirement scenario and continued reinforcement of existing facilities
- Operative date for one of the above alternatives >> 2012-2013

New Substation Configurations

- Collinsville Substation Configuration
  - Construct new 500/230 kV substation
  - Loop new substation off the Vaca Dixon-Tesla or Table Mountain-Tesla 500 kV line
  - Install two 500/230 kV transformer banks at Collinsville
- Sunol Substation Configuration
  - Construct new 500/230 kV substation
  - Loop new substation off the Tesla-Los Banos 500kV line
  - Install two 500/230 kV transformers
  - Loop all the 230 kV lines in the vicinity of the substation into the Sunol station (eight 230 kV lines are in the vicinity of the substation site)

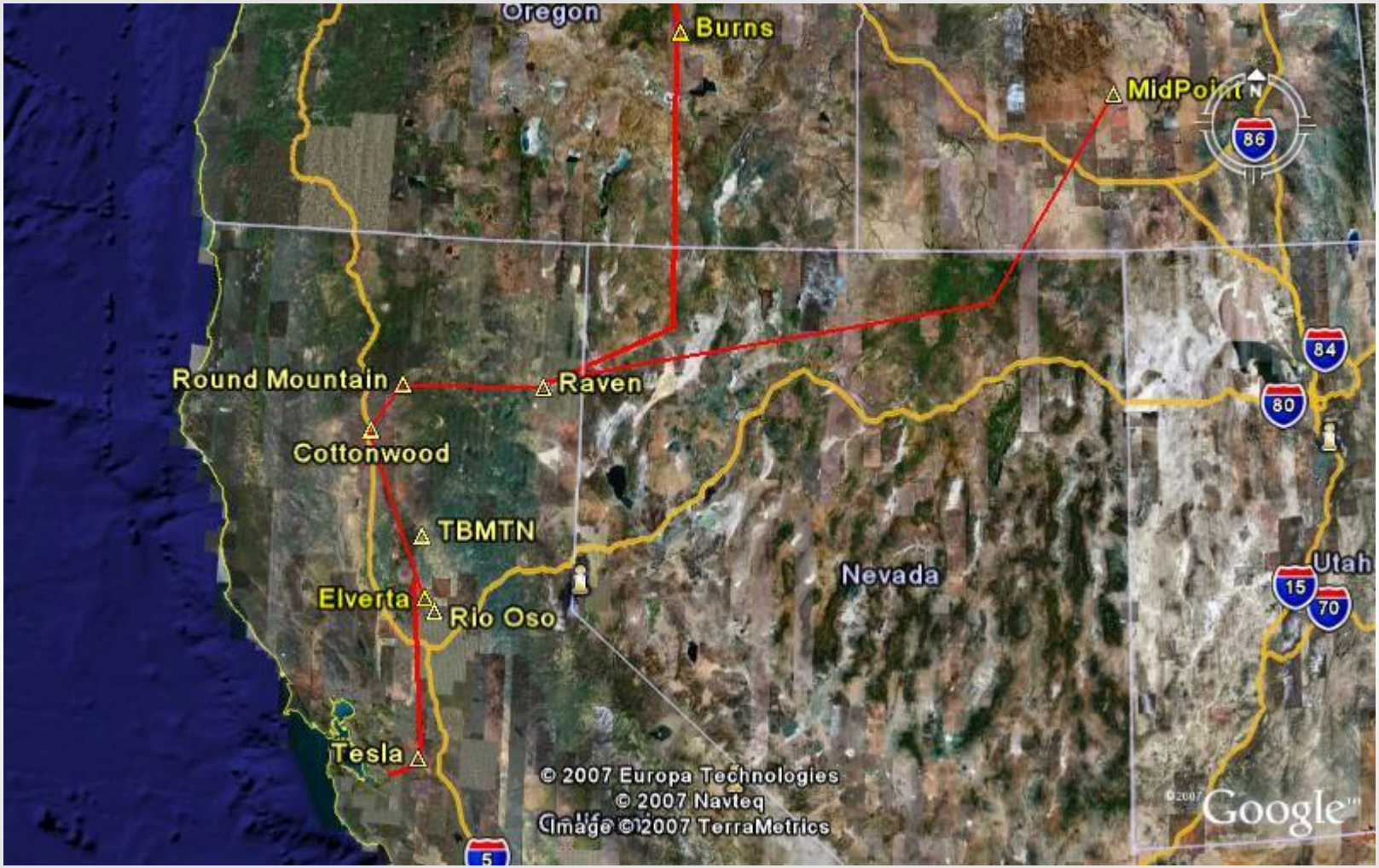

Vaca Dixon
Sacramento
Santa Rosa
Collinsville
500 kV
Vallejo
Concord
Stockton
Berkeley
Oakland
San Francisco
GBA
Tesla/Tracy
Hayward
Mo
Sunol
500 kV
Fremont
Sunnyvale
San Jose
Metcalf

Northern California SubRegional Planning 2013 – 2020+

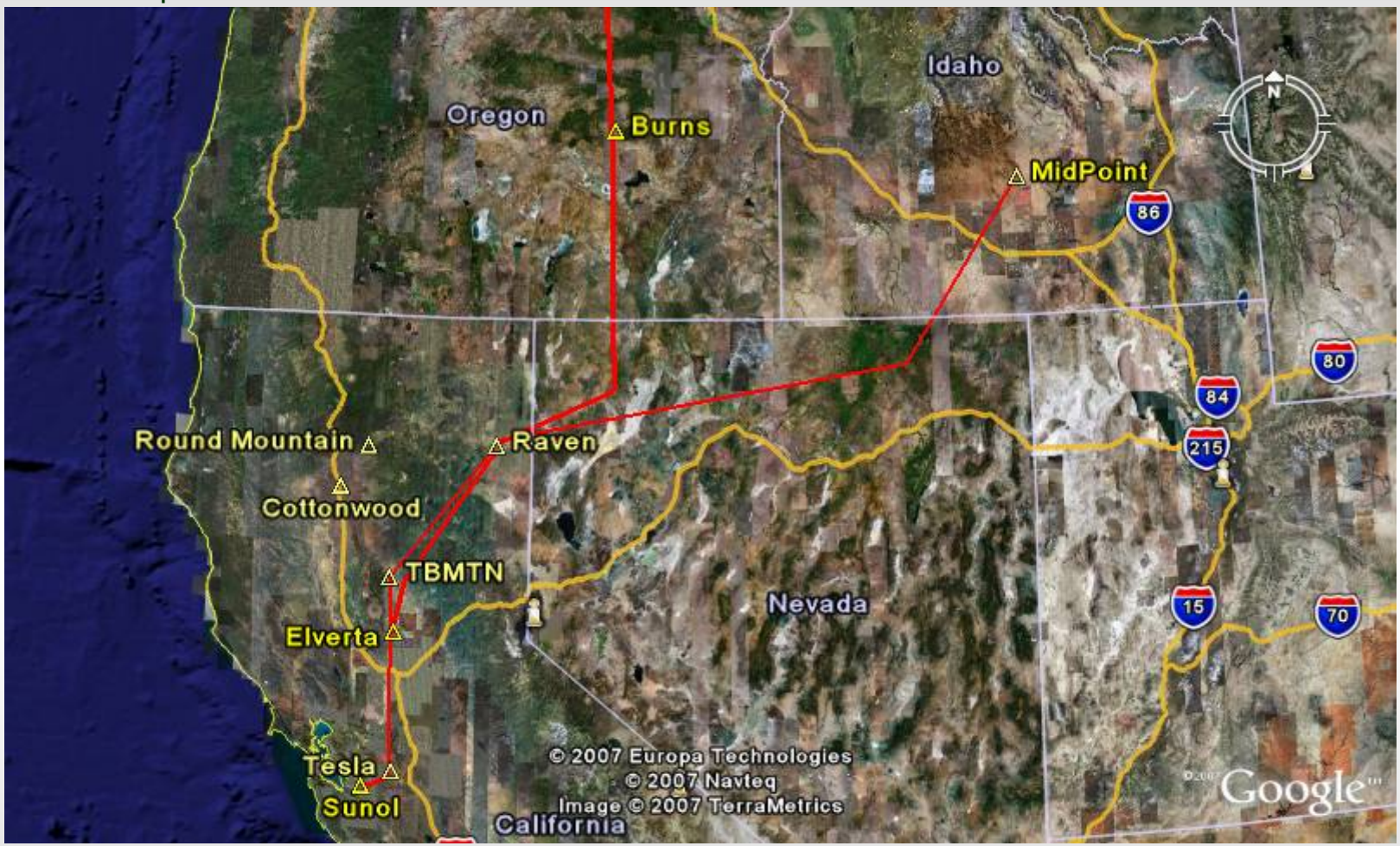
500 kV Upgrades North of Tesla

- To support renewable resource development in northern California and to accommodate imports from Canada and the Pacific Northwest:
  - Option CA1
    - #1 cct: Raven-Cottonwood-Elverta-Tracy
    - #2 cct: Raven-Cottonwood-Tesla-Sunol
  - Option CA2
    - #1 Raven-Elverta, #2 Raven-Tesla-Sunol
  - Option CA3
    - #1 Raven-Elverta, #2 Raven-Bellota-Tesla-Sunol
  - Option CA4
    - #1 Raven-Elverta, #2 Raven-Tesla- Sunol
  - Other Options may be considered during the Northern California Sub-regional Planning process
- Operative Date for one of the above options is 2013

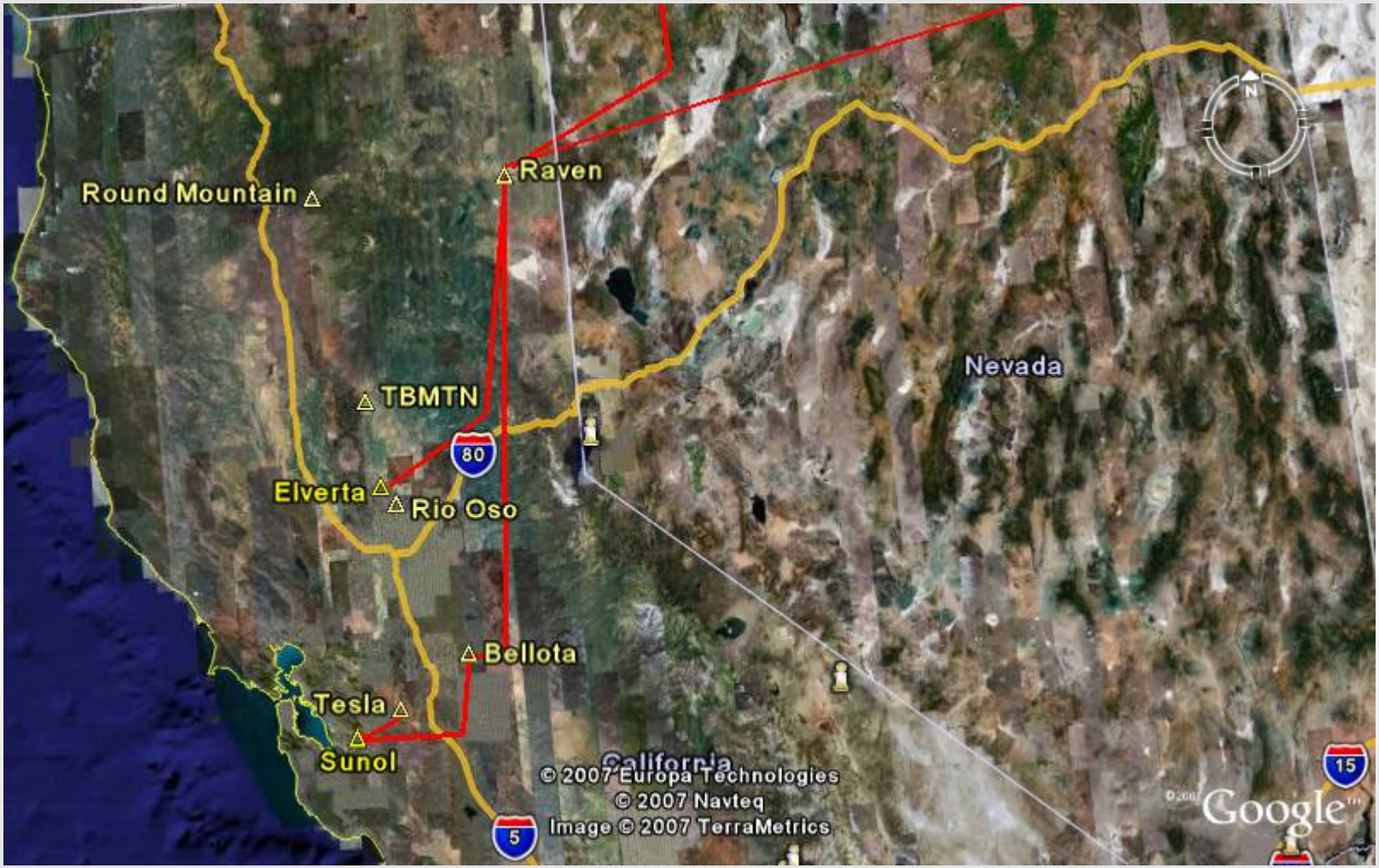
Option CA1: Raven-Cottonwood-Elverta-Tracy and Raven-Tesla-Sunol 500 kV
Draft Conceptual Plan



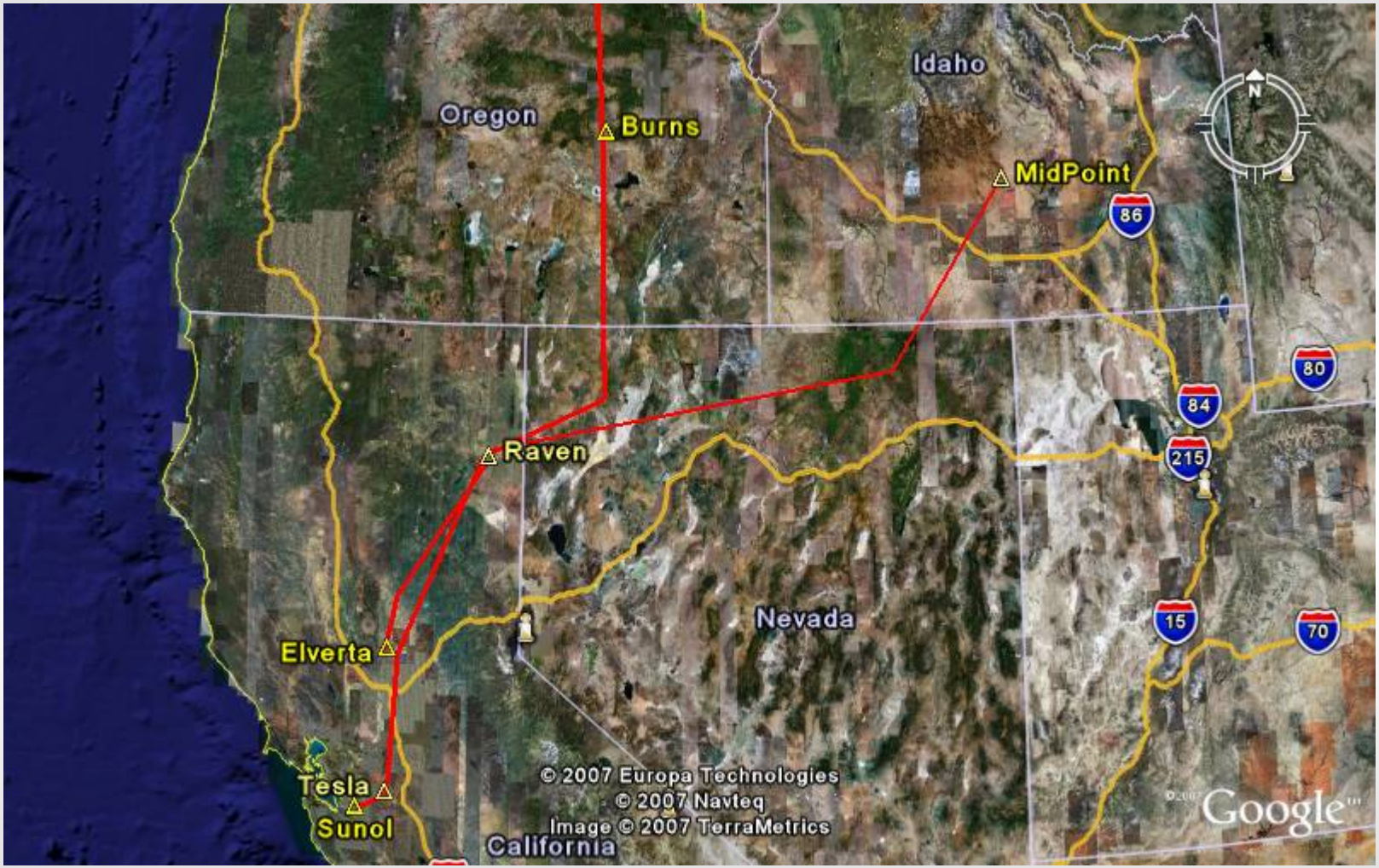
Option CA2: Raven-Elverta and Raven-Tesla-Sunol 500 kV
Draft Conceptual Plan



Option CA3- Raven-Elverta and Raven-Bellota-Sunol--Tesla 500 kV
Draft Conceptual Plan



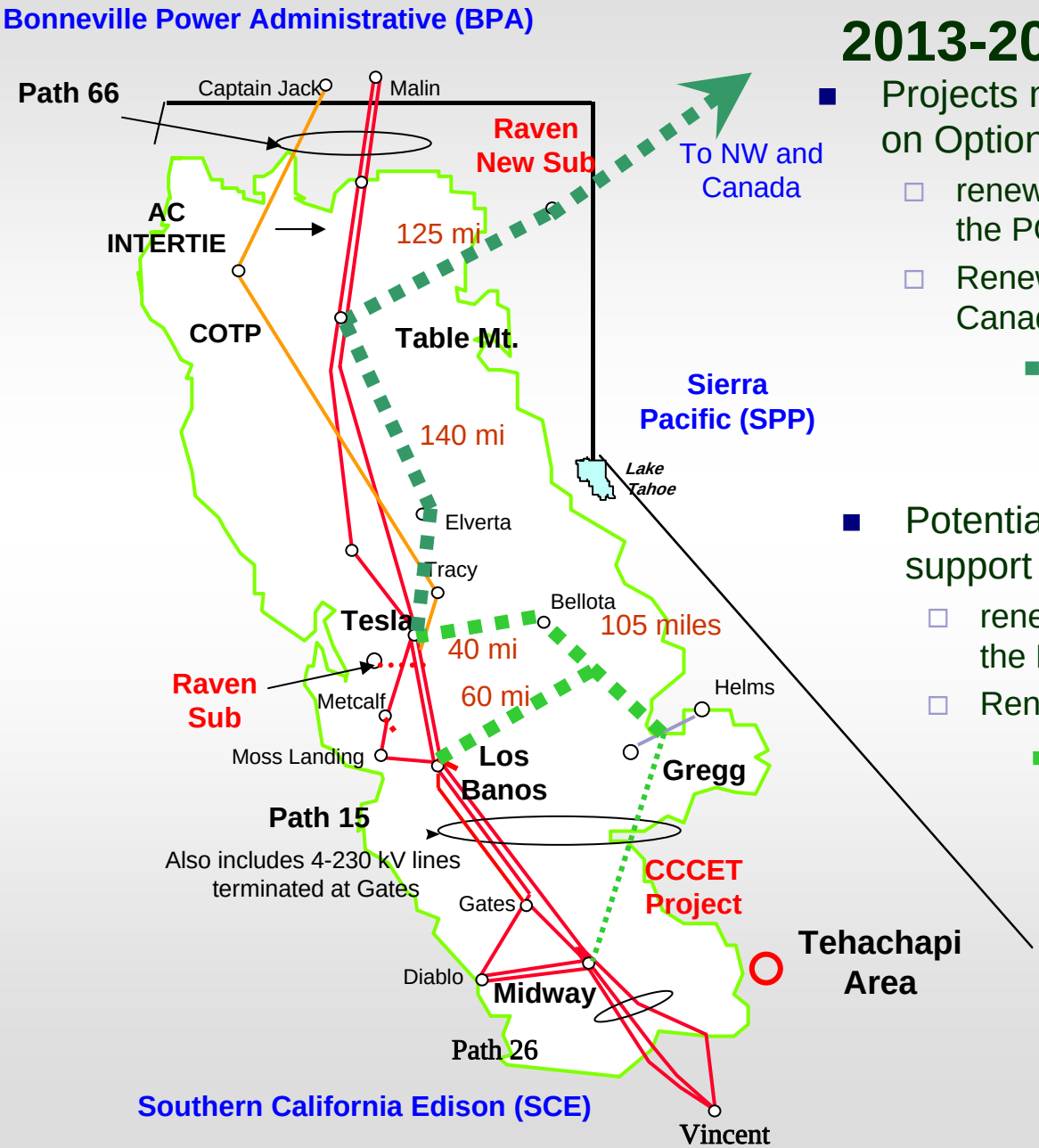
Option CA4- Raven-Elverta and Raven-Tesla-Sunol 500 kV
Draft Conceptual Plan



Completion of New 500 kV line

- Construct 500 kV line
  - from Sunol, Tesla or Tracy east to Bellota
  - From Bellota south to the northern terminus of the Central California
- Operative Date: 2020-2025 range
- Construction completes a 500 kV line from Raven to Midway Substation along the east side of Northern California

Potential Configuration 2013-2025



- Projects north of Tesla support based on Option CA2 (other options possible)
  - renewables in the northern portion of the PG&E service territory
  - Renewables imported from the NW and Canada at proposed Raven Substation
- Potential projects south of Tesla support
  - renewables in the southern portion of the PG&E service territory
  - Renewables imported from the South